

WP 05-WH1205

Revision 6

Yard Transfer Vehicle

Technical Procedure

EFFECTIVE DATE: 11/14/19

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APPROVED FOR USE

THIS DOCUMENT IMPLEMENTS HWFP REQUIREMENTS.

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CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
5	12/05/18	<ul style="list-style-type: none">• Total rewrite.• Formatted to align with WP 15-PS.2, Procedure Writer's Manual.• Added Precautions and Limitations.• Added Acronyms.• Added Attachment 2, Leak Categorization.• Removed Sections related to Yard Transfer Vehicle operations.
5-FR1	06/06/19	<ul style="list-style-type: none">• Added command to give YTV an executable command in Attachment 1.
6	11/14/19	Minor revision. <ul style="list-style-type: none">• Added Limitation, bullet 3.

1.0 INTRODUCTION

1.1 PURPOSE

This procedure provides instructions for YTV inspections required before first use each shift.

Performance of this procedure implements inspection requirements of the HWFP relative to the scope of, and as defined in, this document. Unless otherwise noted, this procedure is performed by Waste Handling personnel.

1.2 SCOPE

This procedure specifies HWFP preoperational YTV inspection requirements.

1.3 RECORDS

Records generated are handled in accordance with departmental RIDS
Performance of this procedure generates the Equipment Logbook.

2.0 REFERENCES

DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
40 CFR 264.15, General Inspection Requirements	✓		
Hazardous Waste Facility Permit, EPA Identification Number NM4890139088-TSDF	✓		(\$)
DOE/WIPP-07-3372, Waste Isolation Pilot Plant Documented Safety Analysis	✓		
DOE/WIPP-07-3373, Waste Isolation Pilot Plant Technical Safety Requirements	✓		(\$)
WP 04-AD3001, Facility Mode Compliance		✓	
WP 04-AD3011, Equipment Lockout/Tagout	✓		
WP 04-AD3016, Equipment Out of Service Process	✓		
WP 05-WH1101, CH Surface Transuranic Mixed Waste Handling Area Inspections		✓	
WP 13-1, Nuclear Waste Partnership LLC Quality Assurance Program Description	✓		
WP 15-GM1002, Issues Management Processing of WIPP Forms		✓	

DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
05-WH1205-JHA, Preoperational Checks for YTV and Utilizing Battery on Battery Pack	✓		

2.1 ABBREVIATIONS AND ACRONYMS

AR	action request
CMRO	Central Monitoring Room Operator
FW/BW	forward/backward
HVAC	heating, ventilation, and air conditioning
HWFP	Hazardous Waste Facility Permit
MCD	manual control display
OOS	out of service
RIDS	Records Inventory and Disposition Schedules
SEC	Site Environmental Compliance
TMF	TRUPACT Maintenance Facility
WHE	Waste Handling Engineer
WIPP	Waste Isolation Pilot Plant
YTV	Yard Transfer Vehicle

3.0 PRECAUTIONS AND LIMITATIONS

3.1 PRECAUTIONS

- Flammable/explosive hazards exist during forklift operations. A fire extinguisher is to be on board forklift.
- Radiological hazards exist during YTV operations in a Radiological area. Personnel are to read and sign the RWP and obey postings.
- Electrical hazards exist during electrical maintenance work. Personnel are to wear proper PPE and use the two-person rule.
- Eye, foot, head, and hand hazards exist during general operations. Personnel are to wear leather (mechanics) gloves and safety/hard toed shoes.

- Moving/falling objects hazards exist during general operations. Personnel are to use a designated spotter.
- Pinch point hazards exist during general operations and inspections. Personnel are to wear leather (mechanics) gloves and maintain situational awareness of placement of extremities.
- Rotating/moving equipment hazards exist during general operations. Personnel are to maintain situational awareness of placement of extremities.
- Slips/trips hazards exist during general operations and inspections. Personnel are to maintain situational awareness and good housekeeping.
- Vehicle traffic hazards exist during general operations. Personnel are to travel on surfaces suitable for vehicle travel and use a designated spotter.
- Lack of ventilation hazards exist when charging batteries. Personnel are to ensure ventilation is operable.

3.2 LIMITATIONS

- Preoperational checks are required prior to the first operation of YTV on each shift to check for: **[HWFP Table E-1]**
 - Mechanical operability
 - Deterioration
 - Path clear of obstacles
 - Guards in proper place
- When charging the YTV during Waste Handling and WASTE STORAGE MODE, the Battery Exhaust System shall be operable when the Battery Exhaust System exhaust fans are in service. **[LCO 3.2.5]**
- Prior to charging batteries in the TMF, verify HVAC system is operable.

4.0 PREREQUISITE ACTIONS

- ### 4.1 REVIEW Equipment Logbook for outstanding deficiencies and ARs.

5.0 PERFORMANCE

5.1 PREOPERATIONAL CHECKS

HWFP

5.1.1 **(\$)** **COMPLETE** Attachment 1, YTV Preoperational Checks.

[HWFP Table E-1]

5.1.2 **NOTIFY** WHE of operational status and deficiencies discovered and status of each.

[A] **IF** deficiencies are corrected when discovered,
THEN CHECK SAT on Attachment 1.

[B] **IF** deficiencies cannot be corrected when discovered,
THEN INITIATE AR and **CHECK** UNSAT on Attachment 1.

5.1.3 **RECORD** the following information in Equipment Logbook:

- Deficiencies found
- Procedure number
- Equipment number
- Hour meter reading
- Check SAT or Problems Noted
- AR(s), if newly initiated or outstanding
- Date, time, and signature to document performance of preoperational check

5.1.4 **IF** an HWFP required inspection becomes delinquent or failed, **THEN PERFORM** the following:

[A] Immediately **NOTIFY** on-call SEC Representative and CMRO of delinquent or failed inspection.

[B] **RESCHEDULE** and **COMPLETE** required inspection.

[C] **DOCUMENT** the following and **SUBMIT** to PermitInspections@wipp.ws within five working days:

- Inspection document number
- Description of facility, equipment involved
- Schedule for inspection
- Reason(s) why inspection was not performed or failed
- Compensatory measures taken to offset negative impacts from not performing the inspection or equipment not providing its intended function
- Actions to prevent further delinquencies

[D] WHE, **GO TO** WP 15-GM1002, Issues Management Processing of WIPP Forms, and **ENSURE** a WIPP form is generated.

HWFP (\$) Attachment 1 – YTV Preoperational Checks [HWFP Table E-1]

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NOTE

- Deficiencies corrected when discovered are considered satisfactory.

TSR

	INSPECTION	CRITERIA	SAT	NA	UNSAT
1	General Condition Checks YTV	NO deterioration/damage which includes visible cracks, erosion, salt build-up, corrosion, malfunctions, and structural deterioration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		NO loose parts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		NO oil leaks, if leak is identified, refer to Attachment 2, Leak Categorization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		NO grease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		NO trash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE all guards are in proper place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE laser targets are NOT blocked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE path clear of obstacles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Battery	ENSURE battery is connected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE battery disconnect is NOT engaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		(\$) IF YTV is going to be placed on battery charger in the TMF, THEN ENSURE WHB Battery Exhaust System is operable [LCO 3.2.5]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Stop Buttons	START YTV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		TEST E-Stop buttons by engaging each one. Reset button must be pressed after each E-Stop button is tested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE C-Stop button is NOT engaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Computer	ENSURE NT8000 is started on main computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE C-WAY8 is started on main computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE YTV is inserted into system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		SEND AGV to a point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		SELECT YTV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		GIVE YTV an executable command*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		CLICK Start	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Bumpers/Bars	SQUEEZE dead man switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE Sick Bumpers are operational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE Schmersal Bar is operational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTINUOUS USE

HWFP (\$) Attachment 1 – YTV Preoperational Checks [HWFP Table E-1]

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	INSPECTION	CRITERIA	SAT	NA	UNSAT
6	MCD	CONNECT MCD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE MCD is in manual mode and perform the following:			
		Place directional control in desired direction (FW/BW)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		PRESS speed control in desired direction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		ENSURE YTV is inserted into system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		UNPLUG MCD controller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*If automatic operations are not SAT, YTV may be operated in manual mode.					

Attachment 2 – Leak Categorization

	TYPE 0	TYPE 1	TYPE 2	TYPE 3	TYPE 4
Indications:	No indications of moisture—dry	Dampness around hoses or engine compartments, including oil sheen	Dripping from a hose	Spraying from a hose or oil running down firewall, etc.	Ruptured hose (e.g., oil line, fuel line)
Status	Operational		DO NOT OPERATE		
Required Actions:	None	RECORD leak Type 1 and the source of the leak in equipment specific Logbook	[A] TAG equipment OOS with an OOS Tag per WP 04-AD3016, Equipment Out of Service Process [B] SUBMIT AR for repairs [C] RECORD leak type and AR number in equipment specific Logbook [D] WHEN repairs and cleanup are completed, the equipment can be put back into service		